ODYSSEE – Optimal decision support system for engineering and expertise

Available with MSCOne Extended Edition

Real-time solutions for engineering, manufacturing, and quality

ODYSSEE CAE - Solving your engineering problems in real-time

ODYSSEE CAE is a unique and powerful CAE-centric innovation platform that allows engineers to apply Machine Learning, Artificial Intelligence, Reduced Order Modelling (ROM), and Design Optimization to workflows. ODYSSEE CAE applies to all industrial design problems and is solver and physics independent, it works with Structural, Thermal, CFD, Acoustics (MSC Nastran, Marc, Adams, Cradle CFD, Actran, etc.). ODYSSEE CAE enhances your knowledge by answering complex engineering questions in real-time that would otherwise take hundreds of hours to simulate and analyse. With only a few previous CAE simulations or physical test data, ODYSSEE CAE predicts, optimizes, and robustly generates accurate results in real-time. ODYSSEE CAE produces full-time history outputs, including complete CAE analysis with detailed post-processing of results.

ODYSSEE A-Eye - Enabling real-time prediction and optimization using image-based machine learning for any industry

ODYSSEE A-Eye is an image-based machine learning solution that accelerates product design and development via real-time parametric simulation and optimization using machine learning and artificial intelligence (AI) solutions. ODYSSEE-A-Eye enables the creation of dedicated customizations for production/non-engineers using image data, sensor data, scalars, labels, curves, and CAD data as inputs and then predicts responses using the known data of your system. This insight enables designers and production technicians to explore the design space more extensively and interactively and improve next-generation products without prohibitive computing costs or time.

ODYSSEE includes:

- Machine learning & AI
- Statistics, data mining, data fusion
- Optimization and robustness
- Process discovery
- Image recognition and compression